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ABSTRACT OF THE DISCLOSURE

A system and method for growing a hot trace in a program during the program's execution in a dynamic translator, comprising the steps of: identifying an initial block as the first block in a trace to be selected; until an end-of-trace condition is reached, applying static branch prediction rules to the terminating branch of a last block in the trace to identify a next block to be added to the selected trace; and adding the identified next block to the selected trace.